US-PAT-NO: **6405037**

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TITLE: Method and architecture for an interactive two-way data
               communication network

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Brief Summary Text - BSTX (33):
   An important aspect of this invention is that the message includes all
information necessary for the client module to generate the user interface and
a particular user interface can be independent from other user interfaces.
Unlike prior art systems that gave the user a predetermined menu from which to
select items, or limited the user to an E-mail like **format,** according to the
principles of this invention, the user interfaces and possible interactions
available to the user are determined only by the applications that developers
make available. The possible interactions and user interfaces for one
application can be totally different and independent from the possible
interactions and user interfaces of another application. Thus, a cellular
telephone, two-way pager, and a telephone all truly become an open platform.

Detailed Description Text - DETX (46):
   In this example, the user does not select a soft key, but rather the user
enters the purchase order number as shown in FIG. 2E using the keypad of
cellular telephone 100. The user enters only the various numbers. The client
process **formats** the number and inserts the dashes as shown in FIG. 2E.

Detailed Description Text - DETX (58):
   In addition, the client process using the information transmitted from
server computer 121, i.e, the cards, generates a wide-variety of user
interfaces as illustrated in FIGS. 2A to 2H. The particular configuration of
the various user interfaces is defined by the cards transmitted in a card deck.
Consequently, the user interface is not fixed to one particular **format** such as
an E-mail type **format,** but rather the **format** is variable and can be redefined
by each card that is interpreted by the client process. Also, in general, the
user interface for one application on a server computer is independent from the
user interface for another application on that server computer.

Detailed Description Text - DETX (106):

A choice card displays a list of choices for the user. The choices are automatically presented in a **format** specified on the choice card. See Appendix I, which is a part of the present disclosure and is incorporated herein by reference in its entirety. As explained above, the user makes a choice by depressing the key corresponding to the choice.

Detailed Description Text - DETX (125):

The GET method is part of HTTP. Thus, the **format** for the GET method is known to those skilled in the art. Also, this particular form of the method is used because a specific server connection is established by cellular telephone 700 and so identification of the server is unnecessary. Nevertheless, briefly, this command instructs server 749 to execute application home.cgi and execution of application home.cgi in turn results in generation of a home deck and a subsequent transmission of the home deck to cellular telephone 700. HTTP/1.0 specifies the HTTP version used by client module 702 in cellular telephone 700.

Detailed Description Text - DETX (221):

Airnet network **translator 500 supports internet protocol (IP)** connections over CDPD network 710 and with each computer network with which translator 500 can interact. In this embodiment, each of the modules in network translator 500 are processes that are executed by the processor in the computer. Control module 1201 is a daemon that listens for transmissions over an IP connection from CDPD network 710. When control module 1201 accepts a transmission, control module 1201 spawns an ANT request processor 1204, which in this embodiment is a process, as indicated above. While in FIG. 12, only one ANT request processor 1204 is shown, there is an ANT request processor spawned for each transmission that control module 1201 accepts and the ANT request processor remains active until the communication is terminated.

Detailed Description Text - DETX (324):

Display cards give information for the user to read. See Formatted Text below for a full description of the **format** of information that can be displayed.

Detailed Description Text - DETX (350):

Entries let the user enter a value. The display content is shown to the user, followed by an entry line. The user's entry is controlled by the **format**. The o-key option indicates the argument that is being set by this entry. The value of the argument are the user's entry.

Detailed Description Text - DETX (351):
o-**format ::=format**=value[; **format**-hint]

Detailed Description Text - DETX (352):
format-hint ::=value

Detailed Description Text - DETX (353):
This option specifies the **format** for user input entries. The string consists of **format** control characters and static text which is displayed in the input area. Most of the **format** control characters control what data is expected to be keyed in by the user. They are displayed as blanks until the user types into them.

Detailed Description Text - DETX (354):
The **format** codes are:

Detailed Description Text - DETX (360):
Format hints indicate what kind of value is expected. If a **format** hint is not understood, it is ignored. Currently defined **format** hints are:

Detailed Description Text - DETX (367):
formatted-text ::=[[flow-image][line-**format**]text-line)*

Detailed Description Text - DETX (369):
text-line
::=[text.vertline.image.vertline.text-format.vertline.alignment-**format**]*

Detailed Description Text - DETX (371):
text-**format** ::=<B>.vertline.<I>.vertline.<BL>

Detailed Description Text - DETX (373):
The **format** codes control Bold, Italic and Blinking. The slash versions cancel the formatting. Unlike HTML, these needn't be strictly nested and over application and over cancellation are tolerated. Formatted-text and formatted-line elements start in plain mode (no bold, italic, or blinking).

Detailed Description Text - DETX (374):
alignment-**format**
::=<CENTER>.vertline.<BOLD>.vertline.<TAB>

Detailed Description Text - DETX (377):
line-**format** ::=<WRAP>.vertline.<LINE>

Detailed Description Text - DETX (497):
Fundamentally, TIL is just PIDL with certain common character sequences replaced by single bytes with the high-bit set. The first two steps above support this. Additionally, images are further compacted by including them inline in a dense **format**.

Detailed Description Paragraph Table - DETL (16):
<PILD> 90 args= C0 alpha E0 </PIDL> 91 button= C1 center E1
<DISPLAY> 92 call= C2 fade E2 </DISPLAY> 93 cost= C3 flipH E3
<CHOICE> 94 default= C4 flipV E4 </CHOICE> 95 flow= C5 group E5
<ENTRY> 96 **format**= C6 inline E6 </ENTRY> 97 go= C7 left E7 <CE
A0 key= C8 list E8 <GE A1 label= C9 none E9 <IMAGE A2 method= CA number
EA <INLINE A3 name= CB right EB <SOFTKEY A4 next= CC slideE EC
<B> B0 page= CD slideN ED </B> B1 prev= CE slideNE EE <I>
B2 src= CF slideNW EF </I> B3 ttl= D0 slideS F0 <BL> B4 value= D1
slideSE F1 </BL> B5 slideSW F2 <CENTER> B6 slideW F3
<RIGHT> B7 <WRAP> B8 <LINE> B9
 BA

Other Reference Publication - OREF (5):
S. Gessler et al**.: "PDAs** as mobile WWW browsers"Computer Networks and ISDN
Systems, vol. 28, No. 1, Dec. 1, 1995, pp. 53-59, XP004001210.